Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems	)	MM Docket No. 87-268
and Their Impact upon the	)	
Existing Television Broadcast	)	
Service		

COMMENTS OF THE CURATORS OF THE UNIVERSITY OF MISSOURI

The Curators of the University of Missouri ("the Curators"), licensee of KOMU-DT, Columbia, Missouri, through its attorneys, hereby submits these Comments in response to the Commission's *Seventh Further Notice of Proposed Rule Making* in *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service,* FCC 06-150, MM Docket No. 87-268 (released Oct. 20, 2006) ("*Seventh Further Notice*"). By these Comments, the Curators respectfully request that the Commission modify the DTV Table of Allotments with respect to KOMU-DT by increasing the KOMU-DT allotted effective radiated power ("ERP") from 8.105 kW to 13.0 kW. As demonstrated herein, the proposed modification is in the public interest because it would enhance KOMU-DT's ability to provide greater digital service to its viewers in Columbia, Missouri without creating any impermissible interference to other allotments or operating stations.

KOMU-DT is authorized to operate on Channel 8, its current NTSC Channel, following the DTV transition period. The station was allocated an ERP of 8.105 kW at a center of radiation 242 meters above average terrain. However, as shown in the attached Engineering Statement prepared by D.L. Markley & Associates, Inc., an engineering analysis of the allocated parameters of KOMU-DT resulted in the conclusion that the parameters would fail to replicate

the Grade B service contour of the current KOMU-TV analog operation.[1] Specifically, the analysis determined that in order to replicate the Grade B contour of the current KOMU-TV NTSC service, KOMU-DT would be required to operate with an increased ERP of 13.0 kW. Consequently, a modification of the proposed DTV table to increase KOMU-DT's allocated ERP to 13.0 kW would serve the public interest because it would allow KOMU-DT to replicate its current analog service while providing digital television service to a larger population than it could using its current DTV allocation. Such an outcome is entirely consistent with the Commission's goal of "promoting overall spectrum efficiency and ensuring the best possible DTV service to the public."[2]

Moreover, the proposed increase in ERP would not increase impermissible interference to other allotments or operating stations. As the attached Engineering Study indicates, although an increased ERP would cause predicted interference to four NTSC stations, the interference would either be masked interference or interference within the 0.1% level established as *de minimis* by the Commission.[3] In addition, three facilities are predicted to receive interference from the proposed facility post-DTV transition. However, because the proposed KOMU-DT facilities would not increase the interfered population by more than an additional 2 percent of the total served, this predicted post-transition interference is similarly in full compliance with the Commission Rules.[4]

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1 *See* Exhibit 1, at 1.

2 *Seventh Further Notice* at ¶ 16. The Curators further submit that modifying the proposed DTV Table of allotments at this time would be a more efficient use of the Commission's resources than waiting to amend the table yet again at some future date after the current DTV freeze is lifted. Should the Commission approve the requested increase in ERP to 13 kW, the Curators fully intend to apply for and construct the modified DTV facilities.

3 *See* Exhibit 1, at 3-4.

4 *See* 47 C.F.R. 73.623(c).

Conclusion

For the reasons set forth above, the Curators respectfully request that the Commission modify the proposed DTV Table of Allotments to increase the allotted ERP of KOMU-DT from 8.105 kW to 13.0 kW.

Respectfully submitted,

The Curators of the University of Missouri

By: /s/_____

Kathryn R. Schmeltzer
Paul A. Cicelski

Its Counsel

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Dated: January 25, 2007

Engineering Statement

The following engineering statement and attached exhibits have been prepared for the Curators of the University of Missouri, licensee of digital television station KOMU-DT at Columbia, Missouri, and are in support of their comments concerning the DTV table of allotments.

KOMU-DT submitted a request to operate on channel 8 following the conclusion of the digital television transition period. This request was granted, and KOMU-DT was allocated an ERP of 8.105 kW (rounded to 8.1 kW in this statement) at a center of radiation of 242 meters above average terrain. The geographic coordinates specified for the allocation are those corresponding to the tower utilized by the current DT and NTSC facilities. KOMU-DT currently operates on channel 8 with its NTSC operation.

An examination of the facility parameters granted to KOMU-DT determined that the facility, if constructed in accordance with the allocation, would fail to replicate the Grade B service contour of the current KOMU NTSC operation. In order to replicate the contour of the NTSC operation, an increase in the effective radiated power to 13.0 kW would be required. Exhibit E-1 depicts and compares the allocated noise limited contour of KOMU-DT on channel 8, as well as the licensed NTSC grade B service contour and the proposed DTV noise limited contour.

The contours on this map correspond to the color key in the upper right hand corner of the map. It should be noted that due to the essentially congruent nature of the proposed DTV noise limited service contour and the licensed grade B service contour, it is difficult to resolve the individual contours on the map in this exhibit. This map was generated, as were the remaining maps in this report, through the use of a commercially available software package.

In order to demonstrate that the proposed increase in the effective radiated power would not adversely affect other facilities in the region, two different interference studies were run. The first of these studies describes the outgoing interference from the proposed facility to other stations of concern before the conclusion of the transition period. As a result, this study is concerned with both current digital and analog facilities.

The map depicting the predicted interference areas from this study is attached as Exhibit E-2 in this statement. Following the map is a tabulation of the population affected by the proposed facility. It should be noted that the interference areas on the map are somewhat difficult to specifically identify due to their minimal size. In addition, since the densely populated St. Louis, Missouri metropolitan area is within the calculation area, a grid size of 0.5 km was utilized

in these studies. It is believed that this change over the typically standard value of 1.0 km per side will yield more accurate results due to the greater resolution.

As this study demonstrates, the proposed increase in effective radiated power would cause interference to four facilities, all of which are NTSC stations. In the case of two of these facilities, KAIT(TV) at Jonesboro, Arkansas and WQAD-TV at Moline, Illinois, all predicted interference would be masked interference, or interference currently being received from another facility. The remaining two facilities, KCCI(TV) at Des Moines, Iowa and WISU-TV at Carbondale, Illinois would have both masked and unmasked interference from the proposed facility. In both cases, the predicted interference would clearly be *de minimus* as 0.002 percent would be affected in the case of KCCI and 0.06 percent (rounded to 0.1 percent) in the case of WSIU-TV.

The second study in this statement concerns facilities following the completion of the digital transition. In this case, the election results and final table were scrutinized for potential facilities which would be impacted by the proposed KOMU-DT operation. For each of these facilities, either the allotted facilities or facilities replicating the NTSC grade B contour were utilized. In addition, it should also be noted that masked interference was disregarded. As the study demonstrates, three facilities are predicted to receive interference from the proposed facility. In the case of each of these facilities, the proposed KOMU-

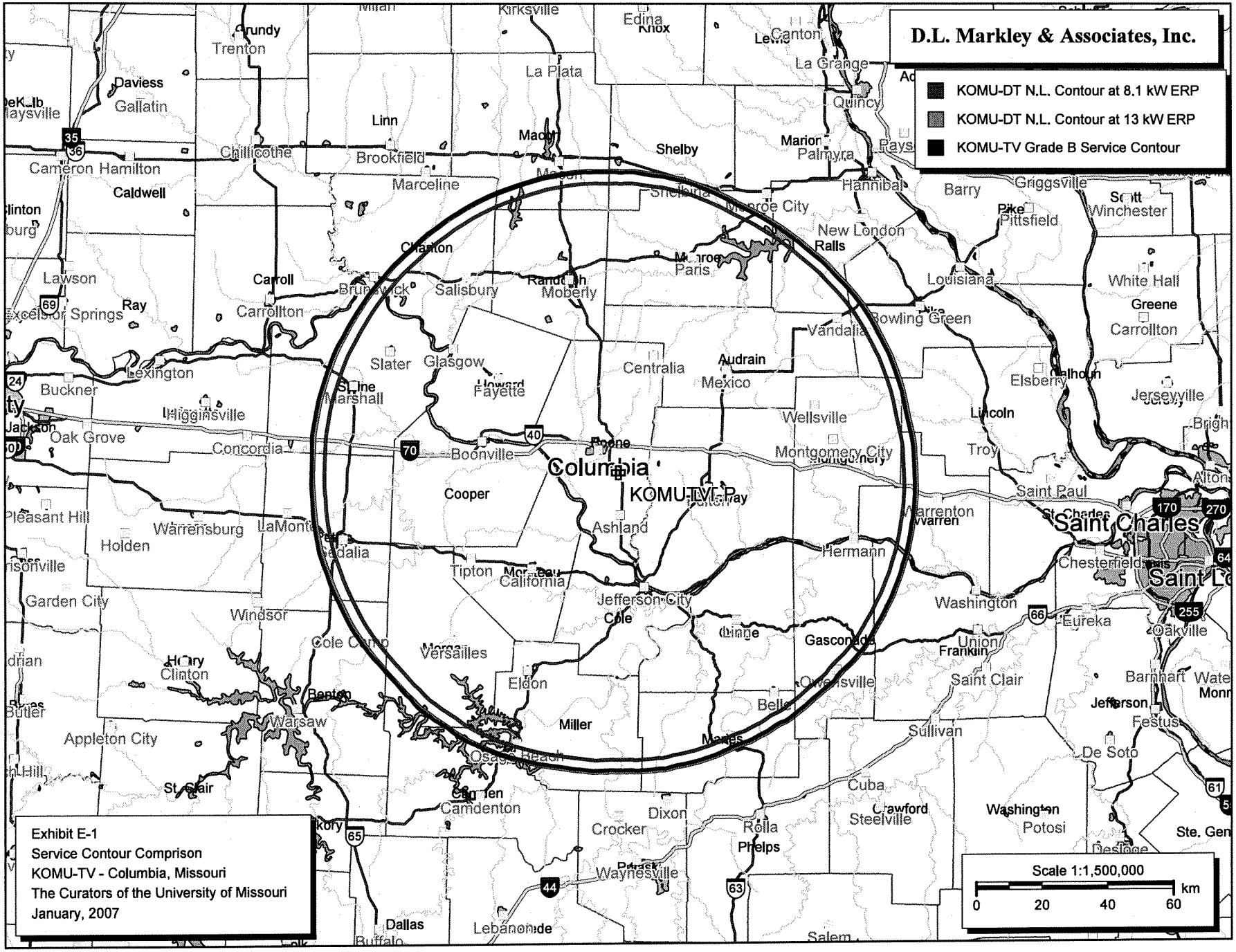
DT facility would not increase the interfered population by more than 2.0 percent of the total served.

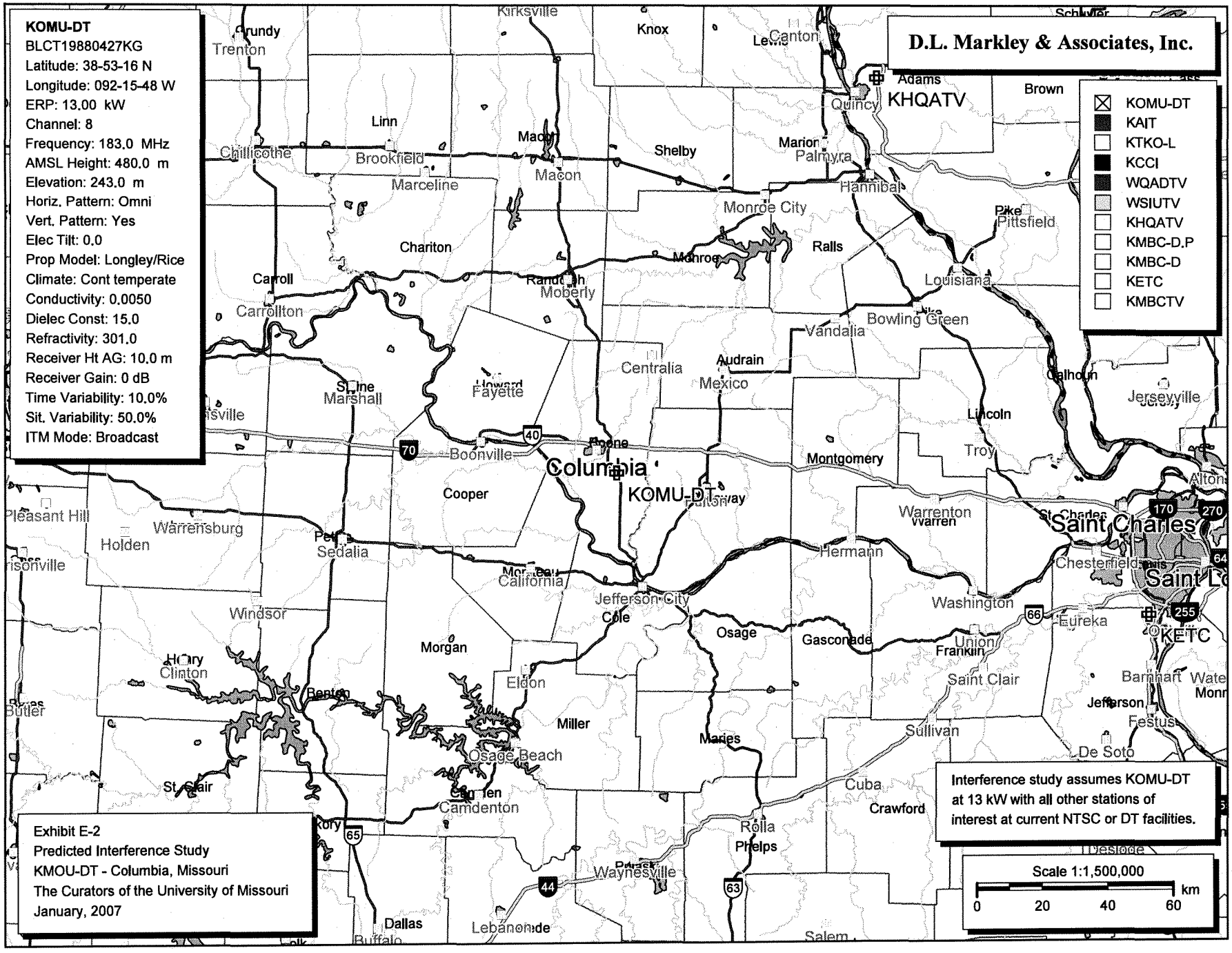
It is therefore respectfully submitted that the proposed increase in effective radiated power to the KOMU-DT final allocated facilities would be in compliance with Commission Rules. Furthermore, the increased ERP would allow KOMU-DT to replicate its current NTSC grade B contour following the conclusion of the transition period. It is believed that this is in the interest of the public as additional residents, especially in rural areas of Missouri, would lie within the service area of an additional television signal.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.

01/11/2007
Date

Jeremy D. Ruck, Consulting Engineer


D.L. Markley & Associates, Inc.
KOMU-DT N.L. Contour at 8.1 kW ERP
KOMU-DT N.L. Contour at 13 kW ERP
KOMU-TV Grade B Service Contour
Columbia
KOMU-TV, Ch
Exhibit E-1
Service Contour Comprison
KOMU-TV - Columbia, Missouri
The Curators of the University of Missouri
January, 2007
Scale 1:1,500,000
0 20 40 60 km


KOMU-DT
BLCT19880427KG
Latitude: 38-53-16 N
Longitude: 092-15-48 W
ERP: 13.00 kW
Channel: 8
Frequency: 183.0 MHz
AMSL Height: 480.0 m
Elevation: 243.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
D.L. Markley & Associates, Inc.
KOMU-DT
KAIT
KTKO-L
KCCI
WQADTV
WSIUTV
KHQATV
KMBC-D.P
KMBC-D
KETC
KMBCTV
KHQATV
KETC
KOMU-DT
Columbia
Saint Charles
Interference study assumes KOMU-DT at 13 kW with all other stations of interest at current NTSC or DT facilities.
Scale 1:1,500,000
0 20 40 60 km
Exhibit E-2
Predicted Interference Study
KMOU-DT - Columbia, Missouri
The Curators of the University of Missouri
January, 2007

D.L. Markley & Associates, Inc.
Outgoing Interference Population Report
Study assumes all other stations at current parameters.

KOMU-DT (8) Columbia, MO - PROPOSED
Broadcast Type: Digital Service: V
Lat: 38-53-16 N Lng: 092-15-48 W ERP: 13.0 kW AMSL: 480.0 m
TV Outgoing Interference Study
Signal Resolution: 0.5 km
Consider NTSC Taboo: Yes
KWX error points are considered to
be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 0.1 km
Masked interference points are being counted
as interference free.
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 1-10-2007
TV Database Date: 01-10-07

Primary Terrain: V-Soft 3 Second US Terrain
Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

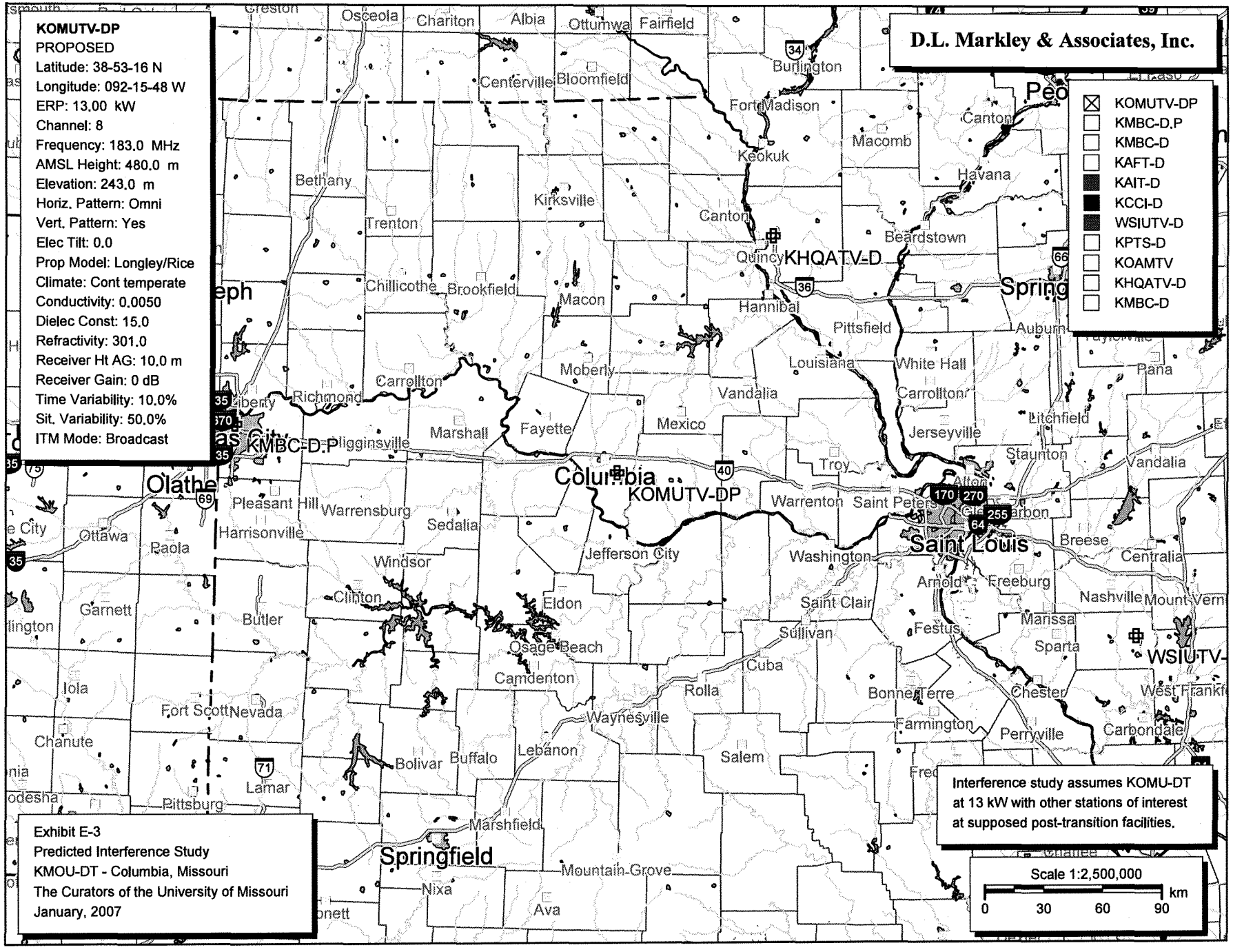
Stations Considered:

Call Letters	City	State	Dist	Bear
KAIT (08-)	Jonesboro	AR	353.0	160.1
KTKO-L (08Z)	Harrison	AR	312.2	195.9
KCCI (08-)	Des Moines	IA	344.3	340.9
WQADTV (08Z)	Moline	IL	313.4	30.2
WSIUTV (08Z)	Carbondale	IL	277.4	107.4
KHQATV (07-)	Hannibal	MO	144.7	33.4
KMBC-D.P (07)	Kansas City	MO	196.4	277.1
KMBC-D (07)	Kansas City	MO	196.4	277.1
KETC (09Z)	St. Louis	MO	168.4	104.9
KMBCTV (09+)	Kansas City	MO	196.4	277.1

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
KAIT (08-)	0.5	0	752,970	33	0	0.0
KTKO-L (08Z)	0.0	0	29,790	0	0	0.0
KCCI (08-)	3.0	14	996,929	1,287	19	0.0
WQADTV (08Z)	0.5	0	988,211	756	0	0.0
WSIUTV (08Z)	2.2	221	845,949	33,822	534	0.1
KHQATV (07-)	0.0	0	325,524	0	0	0.0
KMBC-D.P (07)	0.0	0	2,349,605	0	0	0.0

KMBC-D (07)	0.0	0	2,341,277	0	0	0.0
KETC (09Z)	0.0	0	2,836,006	0	0	0.0
KMBCTV (09+)	0.0	0	2,204,203	0	0	0.0

	Housing Units	Population
Illinois		
St. Clair County		
Total	104,446	256,082
WSIUTV (08Z)	221	534
Iowa		
Appanoose County		
Total	6,697	13,721
KCCI (08-)	14	19
Monroe County		
Total	3,588	8,016
KCCI (08-)	0	0


KOMUTV-DP
PROPOSED
Latitude: 38-53-16 N
Longitude: 092-15-48 W
ERP: 13.00 kW
Channel: 8
Frequency: 183.0 MHz
AMSL Height: 480.0 m
Elevation: 243.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
D.L. Markley & Associates, Inc.
KOMUTV-DP
KMBC-D.P
KMBC-D
KAFT-D
KAIT-D
KCCI-D
WSIUTV-D
KPTS-D
KOAMTV
KHQATV-D
KMBC-D
KMBC-D.P
KOMUTV-DP
KHQATV-D
WSIUTV-
Columbia
Springfield
Saint Louis
Kansas City
Olathe
Quincy
Hannibal
Keokuk
Fort Madison
Burlington
Centerville
Bloomfield
Osceola
Chariton
Albia
Ottumwa
Fairfield
Creston
Bethany
Trenton
Kirksville
Chillicothe
Brookfield
Macon
Moberly
Carrollton
Richmond
Liberty
Marshall
Fayette
Mexico
Vandalia
Louisiana
Pittsfield
White Hall
Jerseyville
Carrollton
Litchfield
Pana
Auburn
Staunton
Troy
Warrenton
Saint Peters
Pleasant Hill
Warrensburg
Sedalia
Harrisonville
Pleasonville
Jefferson City
Windsor
Clinton
Eldon
Osage Beach
Camdenton
Rolla
Cuba
Sullivan
Washington
Arnold
Freeburg
Saint Clair
Festus
Marissa
Sparta
Nashville
Mount Vern
Breese
Centralia
Carbon
Ottawa
Paola
Garnett
Butler
Iola
Fort Scott
Nevada
Chanute
Pittsburg
Lamar
Bolivar
Buffalo
Lebanon
Waynesville
Salem
Bonne Terre
Farmington
Perryville
Chester
Carbondale
West Frankf
Marshfield
Mountain Grove
Nixa
Ava
Macomb
Canton
Havana
Beardstown
Peo
Exhibit E-3
Predicted Interference Study
KMOU-DT - Columbia, Missouri
The Curators of the University of Missouri
January, 2007
Interference study assumes KOMU-DT at 13 kW with other stations of interest at supposed post-transition facilities.
Scale 1:2,500,000
0 30 60 90 km

D.L. Markley & Associates, Inc.
Outgoing Interference Population Report
Study assumes increase in effective radiated power to 13 kW.
Masked interference to other stations not considered.

KOMUTV-DP (8) Columbia, MO - PROPOSED
Broadcast Type: Digital Service: V
Lat: 38-53-16 N Lng: 092-15-48 W ERP: 13.0 kW AMSL: 480.0 m
TV Outgoing Interference Study
Signal Resolution: 0.5 km
Consider NTSC Taboo: Yes
KWX error points are considered to
be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 0.1 km
Masked interference points are being counted
as interference free.
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 1-10-2007
TV Database Date: 01-10-2007

Primary Terrain: V-Soft 3 Second US Terrain
Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

Stations Considered:

Call Letters	City	State	Dist	Bear
KMBC-D.P (07)	Kansas City	MO	196.4	277.1
KMBC-D (07)	Kansas City	MO	196.4	277.1
KAFT-D (09)	Fayetteville	AR	375.1	205.2
KAIT-D (8)	Jonesboro	AR	352.9	160.1
KCCI-D (8)	Des Moines	IA	344.3	340.9
WSIUTV-D (8)	Carbondale	IL	277.4	107.4
KPTS-D (8)	Hutchinson	KS	489.7	260.9
KOAMTV (7)	Pittsburg	KS	283.2	230.0
KHQATV-D (7)	Hannibal	MO	144.7	33.4
KMBC-D (07)	Kansas City	MO	196.4	277.1

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
KMBC-D.P (07)	0.0	0	2,349,605	0	0	0.0
KMBC-D (07)	0.0	0	2,341,277	0	0	0.0
KAFT-D (09)	0.0	0	957,714	0	0	0.0
KAIT-D (8)	7.8	29	707,380	0	66	0.0
KCCI-D (8)	11.8	31	1,004,416	0	71	0.0
WSIUTV-D (8)	90.0	4,815	865,016	0	12,591	1.5

KPTS-D (8)	0.0	0	741,361	0	0	0.0
KOAMTV (7)	0.0	0	556,837	0	0	0.0
KHQATV-D (7)	0.0	0	334,604	0	0	0.0
KMBC-D (07)	0.0	0	2,341,277	0	0	0.0

	Housing Units	Population
Illinois		
Bond County		
Total	6,690	17,633
WSIUTV-D (8)	6	23
Madison County		
Total	108,942	258,941
WSIUTV-D (8)	653	1,557
Monroe County		
Total	10,749	27,619
WSIUTV-D (8)	635	1,682
Randolph County		
Total	13,328	33,893
WSIUTV-D (8)	2	6
St. Clair County		
Total	104,446	256,082
WSIUTV-D (8)	3,333	8,840
Iowa		
Appanoose County		
Total	6,697	13,721
KCCI-D (8)	0	0
Decatur County		
Total	3,833	8,689
KCCI-D (8)	31	71
Wayne County		
Total	3,357	6,730
KCCI-D (8)	0	0
Missouri		
Jefferson County		
Total	75,586	198,099
WSIUTV-D (8)	0	0
Oregon County		
Total	4,997	10,344
KAIT-D (8)	29	66
Perry County		
Total	7,815	18,132
WSIUTV-D (8)	28	53
Ste. Genevieve County		
Total	8,018	17,842
WSIUTV-D (8)	158	430